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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,463	05/24/2001	Atsushi Ueda	L7016.01117	1242

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Washington, DC 20036

EXAMINER

DOVE, TRACY MAE

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 01/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/863,463

Applicant(s)

UEDA ET AL.

Examiner

Tracy Dove

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This Office Action is in response to the communication filed on 11/17/03. Applicant's arguments have been considered, but are moot in view of the new grounds of rejection. Claims 1-22 are rejected in view of the prior art. This Action is made FINAL, as necessitated by amendment.

#### ***Claim Analysis***

Note the term "alkyl" used in the claims is defined on page 4, lines 5-22 of the specification. Specifically the "alkyl" of the claimed invention may be a substituted or unsubstituted alkyl group.

#### ***Claim Objections***

Claim 14 is objected to because of the following informalities: the claim recites "A non-aqueous electrolyte comprising an organic solvent and an electrolyte salt, comprising a compound", which is confusing. Examiner suggests the claim be amended to recite "A non-aqueous electrolyte comprising an organic solvent and an electrolyte salt, wherein the non-aqueous electrolyte further comprises a compound". Appropriate correction is required.

Claims 15-22 are objected to because of the following informalities: the claims recite "at least one of R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup>", which is improper claim language. Examiner suggests "at least one of R<sup>1</sup>, R<sup>2</sup> or R<sup>3</sup>". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 1-12 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 8 recite a non-aqueous liquid electrolyte including the compound of formula (1). However, it is unclear if the claims require that the compound of formula (1) also be in the form of a liquid. Note the specification states the "compound when added to the electrolyte forms a film on the surface of the negative electrode to prevent the electrolyte and the negative electrode from contacting with each other", thus, it appears compound (1) is a solid film.

To the extent the claims are understood in view of the objections and 35 U.S.C. 112 rejections above, note the following prior art rejections.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 4-8 and 11-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Suemori et al., JP 07-192757.

Suemori teaches a nonaqueous electrolyte battery comprising a positive electrode, a negative electrode and a nonaqueous liquid electrolyte (0001). The nonaqueous electrolyte contains a solvent and a salt. The solvent may be ethylene carbonate, propylene carbonate,

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butylene carbonate, vinylene carbonate, 1, 2-dimethoxyethane, dimethyl carbonate, diethyl carbonate, ethyl methyl carbonate, tetrahydrofuran or 1, 3-dioxolane. The salt may be  $\text{LiPF}_6$ ,  $\text{LiClO}_4$ ,  $\text{LiCF}_3\text{SO}_3$ ,  $\text{LiBF}_4$ ,  $\text{LiAsF}_6$  or  $\text{LiN}(\text{CF}_3\text{SO}_2)_2$ . The nonaqueous electrolyte additionally contains at least one of tris(2-hydroxyethyl) isocyanurate, triaryl cyanurate, triallyl isocyanurate or derivatives thereof in an amount of 0.1-30wt%, preferably 5-20 wt% (0005-0006). The negative electrode may be a carbon material such as graphite (0008).

Thus the claims are anticipated.

»

Claims 1-22 are rejected under 35 U.S.C. 102(a) as being anticipated by Hibara et al, JP 2000-348765.

Hibara teaches a nonaqueous electrolytic solution and a secondary battery comprising the nonaqueous electrolytic solution. The battery contains a positive electrode, a negative electrode and the electrolytic solution. A carbon material such as graphite is used as the negative electrode material (abstract). The electrolytic solution contains a nonaqueous solvent containing an isocyanuric acid derivative and an electrolyte (salt). The isocyanuric acid derivative may be expressed by formula I and R1-R3 may be the same or different, each being a 1-10C alkyl group, aryl group or a 1-20C organic group having a carbonyl group and/or an oxy group and/or a double bond (abstract). The R1-R3 groups may be a carboxy ethyl group or a methoxy carbonylethyl group ((0008)-(7)). The solvent may be ethylene carbonate, propylene carbonate, butylene carbonate, vinylene carbonate, dimethyl carbonate, diethyl carbonate or ethyl methyl carbonate ((0008)-(9-10)). The isocyanuric acid derivative is 0.01-5 wt% of the electrolytic solution ((0008)-(11)). Note paragraph (0013).

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Thus the claims are anticipated.

***Response to Arguments***

Applicant's arguments filed 11/17/03 have been fully considered but are moot in view of the new grounds of rejection. Claims 2, 3, 9 and 10 were previously indicated as containing allowable subject matter, however, the claims have been rejected in view of newly applied prior art. Note the rejection is final because neither the "liquid" limitation of claims 1 and 8 nor the "saturated" limitation of claims 13 and 14 were previously presented.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is (703) 308-8821. The Examiner may normally be reached Monday-Thursday (9:00 AM-7:30 PM). My supervisor is


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Pat Ryan, who can be reached at (703) 308-2383. The Art Unit receptionist can be reached at (703) 308-0661 and the official fax numbers are 703-872-9310 (after non-final) and 703-872-9311 (after final).

January 15, 2004

  
Patrick Ryan  
Supervisory Patent Examiner  
Technology Center